Experimental production of wines from cultivar Zibibbo trained in the Linosa island

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Introduction

The project PROMED "The protection of the environment in the islands of the Mediterranean through the development of a tree culture system", financed with funds from the PO Italy-Malta 2007-2013, there is an ongoing job for the recovery of old vines and planting new vineyards on the island of Linosa. To maintain and to enhance the wine-growing in marginal areas is in line with the provisions of the Lisbon Strategy, which aims to provide the public with a better standard of living. The experimental vineyards were planted in Linosa, by IRVO, in accordance with these policies and to identify the distinguishing characteristics for the production of special wines that could be the authentic expression of a particular soil and climatic conditions. The island of Linosa have temperature and relative humidity influenced by the presence of the sea, as well as phenomena of marine aerosols and to a chemical-structural composition of the soil that Fierotti at al. in 1988 describe it as: volcanics, with average endowment of organic, shallow acalcarei, with defects in the main mineral elements.

Materials and methods

The experiment was carried out in 2011, in a vineyard planted in 2007 in the locality called "Faraglioni", in the northern part of the island. The cultivar Zibibbo is grafted on 1103 P, the type of training system is bush with spure pruning and vertical shoots. The experimental protocols were two of wine making, "secco" and "dolce naturale"

Table 2 - Phenoly phases BBCH scale

phase	07 (budburst)	65 (bloom)	81 (veraison)	89 (harvest at 20°brix)
DOY	65	113	193	215

Table 3 - Reproductive characterization

Potential fertility	Real fertility	Plant production Kg/plant	Bunch weight g/plant	Pruning weight g/plant	Ravaz Index
0.8	0.4	0.750	330	420	1.78

Table 4 - Analitycal parameters of the Zibibbo "secco"

Alcool % vol.	Tit. Ac. (g/l ac. tart.)	pH	Malic acid (g/l)	Lattic acid (g/l)	Tartaric acid (g/l)	Citric acid (g/l)	Extract gross (g/l)	Glycerol (g/l)	Sugar (G/F) g/l
12.04	5.93	3.32	2.12	0.02	1.67	0.34	21.04	6.82	traces

Table 5 - Analitycal parameters of the Zibibbo "dolce naturale"

Alcool % vol.	Tit. Ac. (g/l tac. tart.)	pH	Malic acid (g/l)	Lattic acid (g/l)	Tartaric acid (g/l)	Citric acid (g/l)	Extract gross (g/l)	Glycerol (g/l)	Sugar G/F (g/l)
14.66	6	3.61	2.13	0.3	1.73	0.64	126.15	10.43	93.89

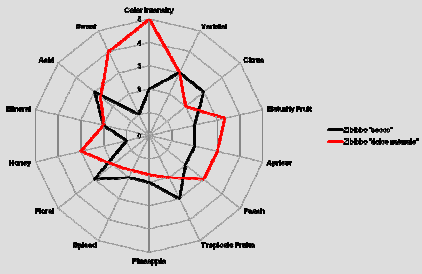

Figure 3 - Sensory profiles

The mineral note, not always present in wine produced in other areas, is present and has a value of 1 for both types of winemaking.

Conclusions

The first results of study of the system vineyard in Linosa island demonstrate an ability to make wine production and, consequently, with high "typical" wine. The mineral notes, hardly correlated with the limited salt content of the soil, probably are the result of salt deposits on the grapes by marine aerosols that occur during the vegetative phase, aerosols with low water storage capacity of soil showed a high influence on the functionality of the canopy and the dynamics of vegetative growth. The criticity due by the soil and climatic situation, make the Linosa system vineyard as "extreme" for the cultivation of the vine and, therefore, strongly demanding a targeted of agronomic management, however the grapes express the dual purpose for the production of wine "dry" and "sweet".